Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the

application.

1. (Currently Amended) A sound wave-based tracking system comprising:

a speaker at a fixed location for automatically transmitting a given signal combined with

one or more other signals, wherein -a-said given signal having has a given frequency above an

audible range and said other signals have frequencies in the audible range;

a plurality of microphones mounted upon an object for receiving said given signal; and

a computing device for determining at least one of a position and an orientation of said

object as a function of from a delay of said given signal received by each of said plurality of

microphones.

2. (Canceled).

3. (Previously Presented) The sound wave-based tracking system according to Claim 1,

wherein said signal comprises a marker and wherein said delay is determined as a function of a

delay between said marker received by each of said plurality of microphones.

4. (Previously Presented) The sound wave-based tracking system according to Claim 1, wherein said delay is determined as a function of a time delay between said signal received by each of said plurality of microphones.

5. (Canceled).

6. (Previously Presented) The sound wave-based tracking system according to Claim 1, wherein said plurality of microphones communicate wirelessly with said computing device.

7. (Currently Amended) A method of tracking comprising:

transmitting simultaneously a first non-audible signal from a first speaker and a second non-audible signal from a second speaker;

receiving said first and second non-audible signal signals at a plurality of microphones;

determining a delay for each of said received first and second non-audible signal signals for each of said plurality of microphones; and

determining at least one of a relative position and a relative orientation of said plurality of microphones as a function of said determined delay delays.

8-10. (Canceled).

11. (Currently amended) The method of tracking according to Claim ~~10~~ 7, wherein:

    said first non-audible signal comprises a sine wave having a first frequency; and

    said second non-audible signal comprises a sine wave having a second frequency.

12. (Previously Presented) The method of tracking according to Claim 7, further comprising controlling a cursor of a computing device as a function of said determined at least one of said relative position and said relative orientation.

13. (Currently Amended) The method of tracking according to Claim 7, further comprising controlling an application executing on a computing device as a function of said determined at least one of ~~daid~~ said relative position and said relative orientation.

14. (Currently Amended) A computing system comprising:

    ~~a plurality of microphones mounted on an assembly, said assembly for mounting on an object;~~

    a plurality of speakers for transmitting one or more sound waves in the audible range, and wherein a first speaker automatically transmits a first signal at a first frequency ~~speaker for generating a sound wave at a frequency~~ above the audible range and a second speaker automatically transmits a second signal at a second frequency above the audible range substantially simultaneously with the first signal;

a plurality of microphones mounted on an assembly for receiving said first and second

signals; and

a computing device coupled to control said ~~speaker~~ speakers and coupled to receive said

first and second signals from each of said plurality of microphones, said computing device for

determining at least one of a relative position and a relative orientation of said assembly based on

delay differences of said first and second signals received from each of said plurality of

microphones.

15. (Original) The computing system as described in Claim 14, wherein said computing

device is a personal computer and wherein said personal computer is wirelessly coupled to said

plurality of microphones.

16. (Original) The computing system as described in Claim 14, wherein said computing

device is a game console and wherein said game console is wirelessly coupled to said plurality of

microphones.

17. (Original) The computing system as described in Claim 14, wherein said plurality of

microphones comprise two microphones and wherein said determined at least one of said relative

position and said relative orientation is within a single spatial plane.

18. (Original) The computing system as described in Claim 14, wherein said plurality of microphones comprise three microphones and wherein said determined at least one of said relative position and said relative orientation is within two spatial planes.

19. (Original) The computing system as described in Claim 14, wherein said computing device comprises a display screen and wherein said computing device translates said determined at least one of said relative position and said relative orientation into a cursor position on said display screen.

20. (Previously Presented) The computing system as described in Claim 14, wherein said sound wave is a sine wave.

21. (Previously Presented) The tracking system according to Claim 1, wherein said signal comprises a marker and wherein said delay is determined as a function of a delay of said marker received by each of said plurality of microphones relative to said marker of a reference signal.

22. (Previously Presented) The audio-based tracking system according to Claim 1, wherein said delay is determined as a function of a time delay of said signal received by each of said plurality of microphones relative to a reference signal.